

and I was glad to find Dr. Richardson condemning the present disuse of the lancet in such cases. My formula for the carbolic mixture, together with other instructions, was published in the *BRITISH MEDICAL JOURNAL*, July 15th, 1874, and I have had no occasion to deviate therefrom in the slightest degree. I always order Calvert's best medicinal acid to be used in the preparation. The dose of the mixture for an infant one year old is fifteen minims, but I remember a case in which the parent administered by mistake to her child doses sufficient for an adult, with the effect of producing hæmaturia, which passed off shortly after the discontinuance of the treatment. This is the only accident which has occurred within my knowledge by the employment of this remedy. The treatment has been adopted by many in this country, and last year I received a letter from a medical officer holding an important position in India, in which he says: "I have tried your carbolic acid treatment in pneumonia, and found it answer admirably; it seems especially fitted for natives".

As regards the *modus operandi* of the mixture, Dr. W. Marcet asks, in his able paper "On Consumption: a Form of Septicæmia" (see *BRITISH MEDICAL JOURNAL*, October 24th, 1874), whether the favourable results I had obtained by treating pneumonia and bronchitis by carbolic acid depended on the action of the acid as an antiseptic? In advanced cases of pneumonia, I think the theory may hold good; but it will scarcely account for the almost magical effect of the medicine in certain cases of acute bronchitis. May not its action on the pneumogastric nerve be the true explanation?

## EXTIRPATION OF THE LACRYMAL GLAND IN OBSTRUCTION OF THE NASAL DUCT.\*

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ALL who are engaged in ophthalmic practice will, I think, agree with me that the treatment of disease of the lacrymal passages is in a most unsatisfactory state, cure being the exception, and even palliation being often very difficult of attainment. Although rarely causing loss of sight, still these complaints constitute a large number of the little ills of life for which patients continue year after year to seek advice, wandering from one medical man to another in hope of that perfect relief which rarely comes.

The following remarks contain very little that is original; but I hope, by confirming the practice of the late Mr. Zachariah Laurence, who was the first to systematically introduce extirpation of the gland in the treatment of lacrymal obstruction (other surgeons having only casually performed it), to impress on those around me the value of the treatment in severe cases, and to raise it into a recognised operation, instead of being considered as a mere surgical curiosity by most surgeons. I have now performed it in a number of bad cases with the most satisfactory results, except in one instance where permanent ptosis was the termination.

The history of the last case, which I now give, will be a type of most of the others.

J. H., aged 24, a gasman, had suffered from right nasal obstruction for nine years; he had been treated by a great number of surgeons with all kinds of lotions; by slitting up the canaliculus; by frequent probing, and, for the last three years, he had worn a style. In spite of all this treatment, the eye was constantly suffused with water; there was trickling of tears over the cheek, and he was compelled to remove by pressure, several times in the day, the accumulation of muco-purulent matter in the lacrymal sac; the style and probing had produced necrosis of the adjoining bones, and there was *ozæna*. His own remark was, that he had received hitherto no benefit whatever; that the inconvenience was so great that he would willingly submit to any operation for his relief.

He was at once admitted into the hospital, and the gland removed. Seven days after, the lid was considerably swollen, but not tense; the power of raising it slight; but the discharge was lessened. A fortnight afterwards, there was much less lid-swelling, the power of raising it had increased, and there was a great diminution of discharge. Eight weeks afterwards: No swelling existed, there was perfect movement of the lid, no discharge, and only slight trace of wound; in fact, it would have been impossible to say which had been the diseased eye. I think no other treatment would have produced such a satisfactory result, the nearest approach being the destruction of the sac by caustic or the actual cautery.

The steps of the operation may be modified according to the size of the operator's finger; the smaller the finger the less the

opening required. As a rule, the external skin-incision should be from an inch to an inch and a quarter in length, commencing just above the external commissure, and extending upwards along the external margin of the orbit, the skin being first slightly drawn up. In the centre of this skin-wound, an opening should be made into the orbit with a scalpel, close to its margin, a director introduced, and the tissues divided downwards with a scalpel or scissors to the lower end of the external wound. An attempt should now be made to feel the gland with the tip of the forefinger by pushing upwards the inner boundary of the deep incision; failing this, the internal opening must be extended slightly upwards with the knife until the gland can be easily felt. The muscles, eyeball, and other structures, are now to be gently pushed downwards and inwards with a fine bone spatula, and held by an assistant; the gland may then be seized and drawn out by a double hook, first detaching it from the soft parts beneath, and lastly from the periosteum with the aid of a curved scissors.

The bleeding, which is generally free, is best stopped by a piece of ice, the wound should be thoroughly washed out with a carbolised lotion, and the edges brought together by two or three sutures; a drainage-tube being introduced into the most dependent part, a pad of dry carbolic gauze, with a piece of waterproof, is placed over the wound and retained by a carbolised bandage. The dressing must be changed as frequently as required by the amount of discharge.

To sum up: the exterior opening should be free, the internal as limited as practicable; for here the palpebral ligament is stronger than at other parts, and, by assisting to suspend the lid, it helps, to a certain extent, the action of the levator palpebræ superioris; hence the less this structure is interfered with the less is the liability to ptosis. The gland should be detached first from the soft parts beneath, so that the ducts should be entirely divided, when, should a portion of its structure be left, it will have no bad effect.

For this detachment, the curved scissors is far better than any scalpel. The drainage-tube, which, I believe, is not mentioned by other operators, I consider all-important; for, by preventing extravasation of blood and too great effusion of lymph, suppuration is almost certainly prevented, and that great evil ptosis avoided; for the history of this operation shows that the power of the levator has been destroyed by the effects of inflammation rather than by direct injury to its fibres. The discharge from the lacrymal sac generally ceases about two months after the operation; but, in very chronic cases with diseased bone, this may continue to a slight extent for four or five months.

In the case in which permanent ptosis resulted, the wound was left open until night, then closed by sutures; some blood accumulated underneath and produced general suppuration under the upper lid, with destruction of the power of the levator palpebræ superioris. In this case, I am confident the insertion of a drainage-tube would have prevented this disaster. In one case, I failed to detect the gland; but the result was quite satisfactory, the incisions made probably destroyed all the ducts; and I believe, if in all cases we could insure the destruction of these, the more severe operation of removing the gland might be done away with.

Mr. Bader, in his excellent manual, states that removal of the gland causes dryness of the eye and irritation of the conjunctiva in windy weather. In all my cases, these conditions have not been observed, the eye remaining quite moist.

In conclusion, by attention to the few suggestions given, I believe all the good, without any of the bad, effects of the operation may be obtained.

## SURGICAL MEMORANDA.

### SKIN-GRAFTING FROM THE PIG.

A LITTLE girl, with a large granulating surface of about seven inches square, the result of a burn, recently came under my care. I procured cicatrisation (and without any contraction) of the greater part of this surface by means of the insertion of more than three hundred skin-grafts. But, then, my supply of skin, not unnaturally, came to an end. I had resort in my difficulty to a young pig, and a few days ago I inserted upwards of twenty grafts of his skin, and with very good results. I can now see my way, I hope, to a successful termination of the case, provided I am not interfered with by the Society for the Utter, Total, and Immediate Suppression of Vivisection. I am not forgetful of the sorrows of the pig; but he suffers in very good company, most of his fellow-victims being sisters of mercy.

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